

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER No. 89-63

SITE CLEANUP REQUIREMENTS FOR:

CTS PRINTEX CORPORATION

1911, 1921, and 1931 Plymouth Street
and 1950 Colony Street
MOUNTAIN VIEW
SANTA CLARA COUNTY

ADN CORPORATION

450 San Antonio Road
PALO ALTO
SANTA CLARA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter called the Board) finds that:

1. **Site Location.** CTS Printex Corporation (CTS) manufactured printed circuit boards at their former facility in Mountain View from 1970 to 1985. ADN Corporation owns the property but CTS has assumed primary responsibility for the subsurface investigation and cleanup. CTS is hereinafter referred to as the discharger for purposes of this Order. In accordance with Provision C.2., ADN Corporation, as landowner of the property, shall be responsible for complying with this Order in the event the discharger fails to comply with this Order.
2. **Site History.** Subsurface investigations were initiated by the discharger in January 1985 prior to moving their operation to Fremont. Chemicals (metals and volatile organics) were detected in soil and groundwater during these investigations. Two probable sources of these chemicals are the wet floor located at 1911 Plymouth Street and the neutralization sump located adjacent to this building. Chemicals detected in soils and groundwater include copper, lead, trichloroethene (TCE), 1,1,1-trichloroethane (TCA), 1,1-dichloroethene (DCE), trans-1,2-dichloroethene (t-DCE), and 1,1-dichloroethane (DCA).
3. **Hydrogeology.** The two major water-yielding zones beneath the site consist of an upper zone about 75 feet thick and a deep aquifer separated by an aquitard approximately 50 feet thick. The deep aquifer begins at about 150 feet below ground surface. There are roughly three smaller units within the upper aquifer: a relatively permeable shallow zone between 10 and 20 feet below grade, an intermediate zone between 30 and 40 feet below grade, and a deeper intermediate zone with permeable materials between 60 and 75 feet below grade. These zones are not distinct in all of the bore holes and correlation of individual permeable zones is imperfect. Depth to groundwater is approximately 9 feet.
4. **Soil Investigation.** A total of 51 soil borings have been drilled to determine the magnitude and extent of soil pollution. Up to 22,000 ppm copper, 2,500 ppm lead, and 0.380 ppm TCE were detected in soil samples beneath the wet floor.

Approximately 250 cubic yards of soil have been excavated from beneath the wet floor. The neutralization sump and approximately 40 cubic yards of surrounding soil have also been removed.

5. **Groundwater Investigation.** The discharger has installed 37 monitoring and extraction wells to depths of up to 75 feet. Volatile organics have not been detected in the deepest monitoring wells at concentrations above 1.0 ppb.

In January 1988, Regional Board staff and the discharger agreed that the plume was adequately defined provided chemical concentrations in wells 33W, 34W, 35W, 36W, or 37W did not increase. However, considering that chemicals have been detected in wells 33W and 34W at concentrations greater than DHS drinking water action levels and that final cleanup orders adopted by the Board for other sites have required cleanup to at least DHS drinking water action levels, this Order requires the discharger to perform additional activities for plume definition.

6. **Interim Remedial Actions.** Seven extraction wells have been installed and are operational. The extracted groundwater is discharged to the sanitary sewer. The discharger is cycling operation of some extraction wells located in areas of high chemical concentration to allow flushing of the soils near source areas. The discharger is also alternating use of some of the extraction wells to avoid creation of a "stagnation zone" that was predicted by computer modelling of simultaneous operation of all extraction wells. The total flow rate from all the wells is less than 60 gpm. This Order requires that the extraction system be evaluated to determine if this system fully contains the plume.

7. **Potential Conduits Investigation.** The discharger conducted a potential conduits investigation that identified numerous wells in the vicinity of the groundwater plume. Little information is available on many of these wells, and many of the wells can no longer be located. In response to staff concerns that these wells could provide a direct conduit for the migration of chemicals to deeper aquifers, the discharger submitted a supplemental report that concluded that an upward vertical gradient has existed since chemicals were released into the upper aquifers. This Order requires that the conclusions of the supplemental report be verified by reviewing hydrographs for wells in the area.

This Order also requires further investigation of the effect of existing active agricultural wells (9P5, 9P17, 9P12, 9P21, and 9P13) that could accelerate lateral chemical migration or provide conduits for the migration of chemicals to lower aquifers.

8. **Work Plan.** The discharger submitted a work plan for the completion of a remedial investigation and feasibility study

(RI/FS) and a proposed final plan on November 7, 1988. In response to staff comments, a revised Work Plan was submitted on March 10, 1989. The final draft of the Work Plan is scheduled to be submitted May 1, 1989. Activities needed to complete the RI/FS are required by this Order and shall be included in the May 1, 1989 work plan.

9. **Regional Board Orders.** On March 27, 1987, the Executive Officer of the Board issued Cleanup and Abatement Order 87-05 to the discharger requiring the discharger to conduct source identification activities, define the plume and conduct interim remediation activities.
10. **Scope of this Order.** This Order requires the discharger to complete plume definition efforts, continue interim remediation actions, determine the effects of potential conduits on lateral and vertical plume migration, and prepare a RI/FS.
11. The discharger is a Potential Responsible Party under the Federal Superfund laws (CERCLA/SARA). The site was proposed for inclusion on the Superfund National Priorities List (NPL) on June 24, 1988. The discharger has submitted comments on their proposed listing which are currently under review by EPA.
12. The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) on December 17, 1986. The Basin Plan contains water quality objectives and beneficial uses for South San Francisco Bay and contiguous surface and ground waters.
13. The existing and potential beneficial uses of the groundwater underlying and adjacent to the facility include:
 - a. Industrial process water supply
 - b. Industrial service water supply
 - c. Municipal and Domestic water supply
 - d. Agricultural water supply
14. The discharger has caused or permitted, and threatens to cause or permit, waste to be discharged or deposited where it is or probably will be discharged to waters of the State and creates or threatens to create a condition of pollution or nuisance.
15. Onsite and offsite interim containment and cleanup measures need to be implemented and/or continued to alleviate the threat to the environment posed by the continued migration of pollutants and to provide a substantive technical basis for designing and evaluating the effectiveness of final cleanup alternatives.
16. This action is an order to enforce the laws and regulations administered by the Board. This action is categorically exempt from the provisions of the CEQA pursuant to Section 15231 of the Resources Agency Guidelines.

17. The Board has notified the discharger and interested agencies and persons of its intent under California Water Code Section 13304 to prescribe Site Cleanup Requirements for the discharge and has provided them with the opportunity for a public hearing and an opportunity to submit their written views and recommendations.
18. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, pursuant to Section 13304 of the California Water Code, that the discharger shall cleanup and abate the effects described in the above findings as follows:

A. PROHIBITIONS

1. The discharge of wastes or hazardous materials in a manner which will degrade water quality or adversely affect the beneficial uses of the waters of the State is prohibited.
2. Further significant migration of pollutants through subsurface transport to waters of the State is prohibited.
3. Activities associated with the subsurface investigation and cleanup which will cause significant adverse migration of pollutants are prohibited.

B. SPECIFICATIONS

1. The storage, handling, treatment or disposal of soil or groundwater containing pollutants shall not create a nuisance as defined in Section 13050(m) of the California Water Code.
2. The discharger shall conduct monitoring activities as needed to define and detect changes in the local hydrogeologic conditions and the lateral and vertical extent of soil and groundwater containing chemicals. Should monitoring results show evidence of pollutant migration, additional characterization of pollutant extent may be required.

C. PROVISIONS

1. The discharger shall submit to the Board acceptable monitoring program reports containing results of work performed according to a program prescribed by the Executive Officer.
2. CTS shall comply with the Prohibitions and Specifications above immediately except as modified by the time schedule

and tasks listed below. Within sixty (60) days of the Executive Officer's determination and actual notice to ADN Corporation that the primarily responsible discharger under this Order has failed to comply with this Order, ADN Corporation, as landowner of the property, shall be responsible for complying with the Order.

a. REVISED WORK PLAN

1) COMPLETION DATE: May 1, 1989

TASK 1: Submit a technical report acceptable to the Executive Officer containing a revised work plan consistent with the requirements of this Order and EPA draft "Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA" (dated March 1988) and addressing staff comments contained in the March 21, 1989 letter.

b. BASELINE PUBLIC HEALTH EVALUATION

1) COMPLETION DATE: May 31, 1989

TASK 2: Submit a technical report acceptable to the Executive Officer containing a work plan for the completion of a baseline public health evaluation prepared in accordance with the Superfund Baseline Public Health Evaluation Manual (EPA 540/1-86/060, October 1986).

2) COMPLETION DATE: September 1, 1989

TASK 3: Submit a technical report acceptable to the Executive Officer containing a baseline public health evaluation prepared in accordance with the Superfund Baseline Public Health Evaluation Manual (EPA 540/1-86/060).

c. POTENTIAL CONDUITS INVESTIGATION

1) COMPLETION DATE: May 31, 1989

TASK 4: Submit a technical report acceptable to the Executive Officer documenting and evaluating information obtained from historical hydrographs of area wells. The report shall specifically address the effects of this information on the discharger's conclusion that an upward vertical gradient has existed since the date that Printex occupied the property.

2) COMPLETION DATE: June 30, 1989

TASK 5: Submit a technical report acceptable to the Executive Officer containing a proposal for

evaluating vertical gradients induced by the Molinari wells (9P12 and 9P21), determining the lateral area of influence of these wells in the shallow and intermediate zones, and evaluating the potential for migration of chemicals in the vicinity of well 37W to deeper aquifers. The proposal shall also provide for evaluating the potential effects of other local agricultural wells including 9P17, 9P5, and 9P13 on plume migration.

3) COMPLETION DATE: September 29, 1989

TASK 6: Submit a technical report acceptable to the Executive Officer providing the results from the activities identified in the technical report submitted for Task 5 and including a proposal for any additional actions needed to eliminate or minimize the accelerated lateral migration of chemicals in the shallow and intermediate zones and to eliminate or minimize migration of chemicals to deeper aquifers.

d. **CHARACTERIZE GROUNDWATER POLLUTION**

1) COMPLETION DATE: May 31, 1989

TASK 7: Submit a technical report acceptable to the Executive Officer containing a proposal to define the lateral extent of groundwater pollution in the vicinity of well 34W and containing the results from the resampling of well 33W. If concentrations in the resampling are greater than DHS action levels, the technical report shall also contain a proposal for additional monitoring wells to define the lateral extent of pollution in the vicinity of 33W. If two consecutive future samples from well 33W contain chemicals at concentrations greater than DHS action levels, the discharger shall comply with the requirements of Section C.3.b(5) of the Self Monitoring Program.

2) COMPLETION DATE: July 21, 1989

TASK 8: Submit a technical report acceptable to the Executive Officer documenting the completion of activities identified in the technical report submitted for Task 7, evaluating the need for additional monitoring wells, and containing a revised self-monitoring plan and a proposal for additional monitoring wells, if necessary.

e. **EVALUATION OF INTERIM REMEDIAL MEASURES**

1) COMPLETION DATE: November 30, 1989

TASK 9: Submit a technical report acceptable to the Executive Officer which contains the results of the remedial investigation and evaluates the effectiveness of the interim hydraulic containment system and other interim remedial measures. Such an evaluation shall include, but need not be limited to, an estimation of the flow capture zones of the extraction wells, establishment of the cones of depression by field measurements, and presentation of chemical monitoring data. The report shall also evaluate the effects of operation of existing extraction wells on groundwater levels and whether the well cycling program avoids creating stagnation zones. The report shall document the completion of and evaluate any actions done in response to Task 6.

f. **PROPOSED FINAL CLEANUP OBJECTIVES AND ACTIONS**

1) **COMPLETION DATE:** November 30, 1989

TASK 10: Submit a technical report acceptable to the Executive Officer pursuant to the work plan described in Finding 8 as revised, and approved by the Executive Officer, containing a feasibility study evaluating alternative final remedial measures; and a separate technical report acceptable to the Executive Officer containing the recommended measures necessary to achieve final cleanup objectives, and the tasks and time schedule necessary to implement the recommended final remedial measures.

3. The submittal of technical reports evaluating interim and final remedial measures will include a projection of the cost, effectiveness, benefits, and impact on public health, welfare, and environment of each alternative measure. The remedial investigation and feasibility study shall be consistent with the guidance provided by Subpart F of the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR Part 300); Section 25356.1 (c) of the California Health and Safety Code; CERCLA guidance documents; and the State Water Resources Control Board's Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California."
4. If the discharger is delayed, interrupted or prevented from meeting one or more of the completion dates specified in this Order, the discharger shall promptly notify the Executive Officer and the Board may consider revision to this Order.
5. Technical status reports on compliance with the Prohibitions, Specifications, and Provisions of this Order shall

be submitted quarterly to the Board commencing on July 15, 1989, and covering the previous three months. On a quarterly basis thereafter, or as required by the Executive Officer, these reports shall consist of a report that: (1) summarizes work completed since submittal of the previous report and work projected to be completed by the time of the next report, (2) identifies any obstacles which may threaten compliance with the schedule of this Order and what actions are being taken to overcome these obstacles, and (3) includes, in the event of non-compliance with any Provision or Specification of this Order, written notification which clarifies the reasons for non-compliance and which proposes specific measures and a schedule to achieve compliance. This written notification shall identify work not completed that was projected for completion, and shall identify the impact of non-compliance on achieving compliance with the remaining requirements of this Order. Annual flow rates from active agricultural wells in the area (9P17, 9P5, 9P21, and 9P13) shall be included in the quarterly report due April 15.

These reports shall also identify any problems with or changes in the groundwater extraction system. Additionally, the quarterly reports shall include, but need not be limited to, updated water table and piezometric surface maps and plume maps for all affected water bearing zones, and appropriately scaled and detailed base maps showing the location of all monitoring wells and extraction wells, and identifying adjacent facilities and structures. If five or more new soil borings or wells are completed during any quarter, updated cross-sectional geological maps shall be provided in the quarterly report for that quarter.

6. On an annual basis beginning with the report due January 15, 1990, or as required by the Executive Officer, the status report shall include, but need not be limited to, an evaluation of the progress of interim cleanup measures. A summary of monitoring and sampling data shall also be included in the annual report.
7. The discharger shall submit technical reports acceptable to the Executive Officer containing revised Quality Assurance Project Plans, Site Safety Plans, and Site Sampling Plans. Each revised report shall be submitted within 30 days from the date of staff comments on the draft report.
8. All hydrogeological plans, specification, reports, and documents shall be signed by or stamped with the seal of a registered geologist, engineering geologist, or professional engineer.

9. All samples shall be analyzed by laboratories certified to perform analysis on Hazardous Materials or laboratories using approved EPA methods or an equivalent method acceptable to the Executive Officer. All laboratories shall follow EPA guidance "Documentation Requirements for Data Validation of Non-CLP Laboratory Data for Organic and Inorganic Analyses" dated May 1988 for preparation of data validation packages when required by the Executive Officer.
10. The discharger shall maintain in good working order, and operate, as efficiently as possible, any facility or control system installed to achieve compliance with the requirements of this Order.
11. Copies of all reports pertaining to compliance with the Prohibitions, Specifications, and Provisions of this Order, shall be provided to the following agencies:
 - a. Santa Clara Valley Water District
 - b. Santa Clara County Health Department
 - c. City of Mountain View
 - d. State Department of Health Services/TSCD
 - e. U.S. Environmental Protection Agency, Region IX,
T-4-5


The Executive Officer may additionally require copies of correspondence, reports and documents pertaining to compliance with the Prohibitions, Specifications, and Provisions of this Order to a local repository for public use. Additional copies of correspondence, reports, and documents pertaining to compliance with the Prohibitions, Specifications, and Provisions of this Order shall be provided for public use when requested by the Executive Officer.

12. The discharger shall permit the Board or its authorized representative, in accordance with Section 13267(c) of the California Water Code:
 - a. Entry upon premises in which any pollution sources exist, or may potentially exist, or in which any required records are kept, which are relevant to this Order.
 - b. Access to copy any records required to be kept under the terms and conditions of this Order.
 - c. Inspection of any monitoring equipment or methodology implemented in response to this Order.
 - d. Sampling of any groundwater or soil which is accessible, or may become accessible, as part of any investigation or remedial action program undertaken by the discharger.

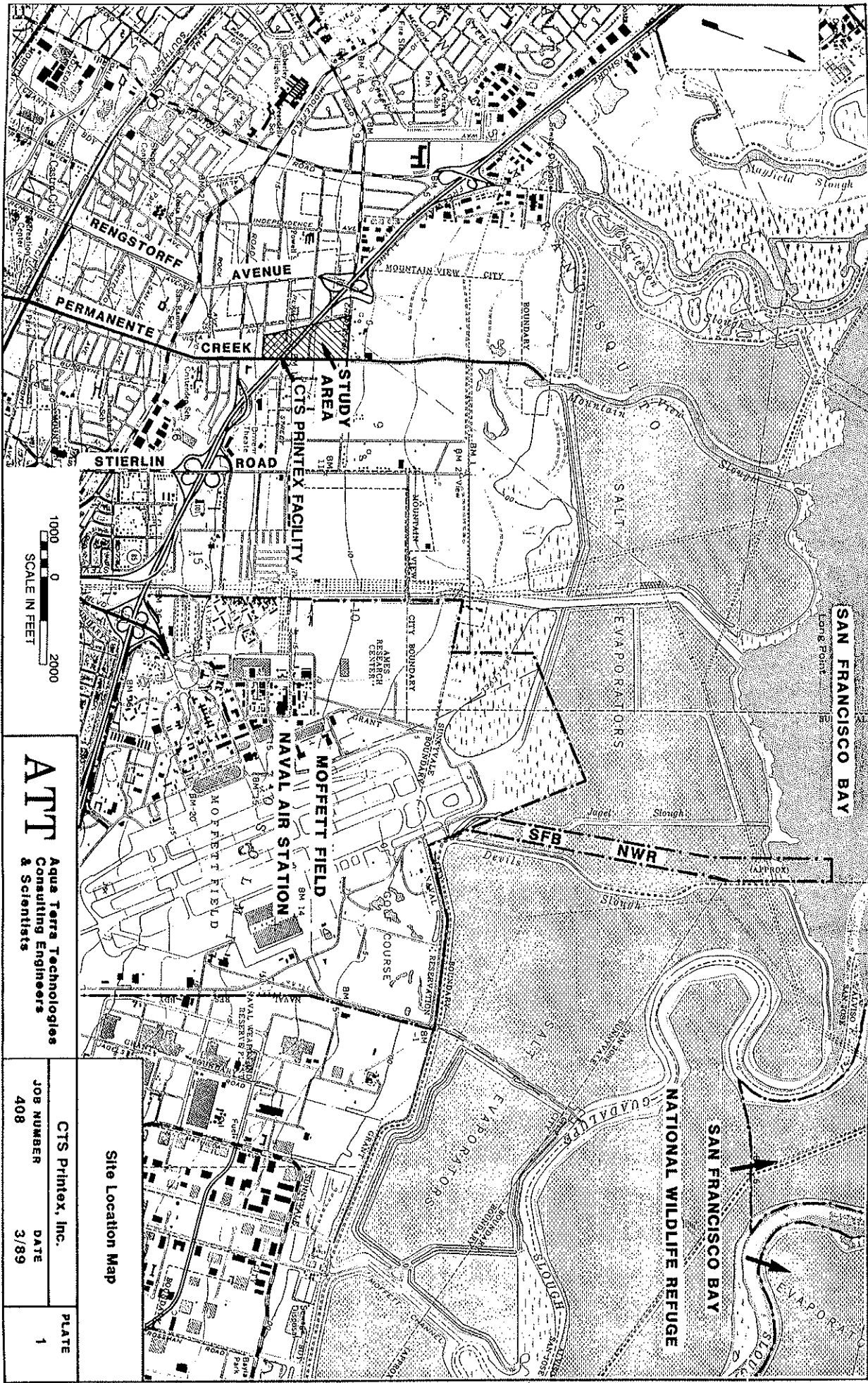
April 19, 1989

13. The discharger shall file a report on any changes in site occupancy and ownership associated with the facility described in this Order.
14. If any hazardous substance, as defined pursuant to Section 25140 of the Health and Safety Code, is discharged in or on any waters of the state, or discharged and deposited where it is, or probably will be discharged i or on any waters of the state, the discharger shall report such discharge to this Regional Board, at (415) 464-1255 on weekdays during office hours form 8 a.m. to 5 p.m., and to the Office of Emergency Service at (800) 852-7550 during non-business hours. A written report shall be filed with the Regional Board within five (5) working days and shall contain information relative to: the nature of waste or pollutant quantity involved, duration of incident, cause of spill, Spill Prevention, Control, and Countermeasure Plan (SPCC) in effect, if any estimated size of affected area, nature of effect, corrective measures that have been taken or planned, and a schedule of these activities, and persons/agencies notified.
15. The Board will review this Order periodically and may revise the requirements when necessary.
16. Board Order No. 87-05 is hereby rescinded.

I, Steven R. Ritchie, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Control Board, San Francisco Bay Region, on April 19, 1989.


STEVEN R. RITCHIE
EXECUTIVE OFFICER

Attachment: Self-Monitoring Program
Site Map



1000 0 2000
SCALE IN FEET

ATT
Aqua Terra Technologies
& Scientists

Site Location Map

CTS Printex, Inc.

JOB NUMBER

408

DATE

3/89

PLATE

1

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

CTS PRINTEX CORPORATION
Mountain View
GROUNDWATER SELF-MONITORING PROGRAM

A. GENERAL

Reporting responsibilities of waste dischargers are specified in Sections 13225(a), 13267(b), 13268, 13383 and 13387(b) of the California Water Code and this Regional Board's Resolution No. 73-16.

The principal purposes of a monitoring program by a waste discharger, also referred to as self-monitoring program, are: (1) to document compliance with waste discharge requirements and prohibitions established by this Regional Board, (2) to facilitate self-policing by the waste discharger in the prevention and abatement of pollution arising from waste discharge, (3) to develop or assist in the development of effluent or other limitations, discharge prohibitions, national standards of performance, pretreatment and toxicity standards, and other standards, and (4) to prepare water and wastewater quality inventories.

B. SAMPLING AND ANALYTICAL METHODS

Sample collection, storage, and analyses shall be performed according to the EPA Method 8000 series in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods," dated November 1986; or other methods approved and specified by the Executive Officer of this Regional Board.

C. REPORTS TO BE FILED WITH THE REGIONAL BOARD

1. Violations of Requirements

In the event the discharger is unable to comply with the conditions of the site cleanup requirements and prohibitions due to:

- a. Maintenance work, power failures, or breakdown of waste treatment equipment, or
- b. accidents caused by human error or negligence, or
- c. other causes, such as acts of nature, or
- d. poor operation or inadequate system design,

the discharger shall notify the Regional Board office by telephone as soon as he or his agents have knowledge of the incident and confirm this notification in writing within 5 working days of the telephone notification. The written report shall include time, date, and person notified of the incident. The report shall include pertinent information explaining reasons for the noncompliance and shall indicate what steps were taken to prevent the problem from recurring.

In addition, the waste discharger shall promptly accelerate the pertinent portions of his monitoring program to monthly or as required by the Board's Executive Officer for those constituents which have been violated. Such analyses shall continue until such time as the effluent limits have been attained or until such time as the Executive Officer determines to be appropriate. The results of such monitoring shall be included in the regular Self-Monitoring Report.

2. The discharger shall file a written technical report to be received at least 30 days prior to advertising for bid (or 60 days prior to construction) on any construction project which would cause or aggravate the discharge of waste in violation of requirements; said report shall describe the nature, cost, and scheduling of all action necessary to preclude such discharge.
3. Self-Monitoring Reports

Written reports shall be filed regularly for each calendar quarter (unless specified otherwise) and filed no later than the fifteenth day of the following quarter. The first quarterly report is due July 15, 1989. The reports shall be comprised of the following:

a. Letter of Transmittal:

A letter transmitting self-monitoring reports should accompany each report. Such a letter shall include a discussion of requirement violations found during the reporting period and actions taken or planned for correcting any requirement violations. If the discharger has previously submitted a detailed time schedule for correcting requirement violations, a reference to this correspondence will be satisfactory. Monitoring reports and the letter transmitting reports shall be signed by a principal executive officer or a duly authorized representative of that person.

The letter shall contain the following statement by the official, under penalty of perjury, that to the

best of the signer's knowledge the report is true and correct.

b. Results of Analyses and Observations

- (1) Results from each required analysis and observation shall be submitted in the quarterly self-monitoring regular reports. Results shall also be submitted for any additional analyses performed by the dischargers at the specific request of the Board. Quarterly water level data shall also be submitted in the quarterly report.
- (2) The quarterly reports shall include the groundwater extraction rates from each extraction well, water level data from the extraction wells, the results of any aquifer tests conducted during the quarter, and data collected to evaluate the effectiveness of the well cycling program.
- (3) The quarterly reports shall include a discussion of unexpected operational changes which could affect performance of the extraction system, such as flow fluctuations, maintenance shutdown, etc.
- (4) The quarterly report shall also identify the analytical procedures used for analyses either directly in the report or by reference to a standard plan accepted by the Executive Officer. Any special methods shall be identified and should have prior approval of the Board's Executive Officer.
- (5) The discharger shall describe in the quarterly Self-Monitoring Report (SMR) the reasons for significant increases in a pollutant concentration at a well. The description shall include:
 - a) the source of the increase,
 - b) how the discharger determined or will investigate the source of the increase, and
 - c) what source removal measures have been completed or will be proposed.
- (6) Original lab results shall be retained and shall be made available for inspection for six years after origination or until after all

continuing or impending legal or administrative actions are resolved.

- (7) A map or maps shall accompany the quarterly report, showing all sampling locations and plume contours.
- (8) The discharger shall describe in the quarterly monitoring report the effectiveness of the actions taken to regain compliance if compliance is not achieved. The effectiveness evaluation shall include the basis of determining the effectiveness, water surface elevations and water quality data.
- (9) The annual report shall be combined with the fourth quarter regular report and shall include cumulative data for the current year. The annual report for December shall also include minimum, maximum, median, and average water quality data for the year, a summary of water level data, and GC/MS results. The report shall contain both tabular and graphical summaries of historical monitoring data.

d. SMP Revisions:

Additional long term or temporary changes in the sample collection frequency and routine chemical analysis may become warranted as monitoring needs change. These changes shall be based on the following criteria and shall be proposed in a quarterly SMR. The changes shall be implemented no earlier than 45 days after the self-monitoring report is submitted for review or not at all if the proposal is found to be unacceptable.

Criteria for SMP revision:

- (1) Discontinued analysis for a routine chemical parameter for a specific well after a one-year period of below detection limit values for that parameter.
- (2) Changes in sampling frequency for a specific well after a one-year period of below detection limit values for all chemical parameters from that well.
- (3) Temporary increases in sampling frequency or changes in requested chemical parameters for a well or group of wells because of a change in data needs (e.g., evaluating groundwater

extraction effectiveness or other remediation strategies).

- (4) Add routine analysis for a chemical parameter if the parameter appears as an additional chromatographic peak in three consecutive samples from a particular well.
- (5) Alter sampling frequency based on evaluation of collective data base.

D. DESCRIPTION OF SAMPLING STATIONS

All existing and future shallow, intermediate and deep aquifer monitoring and extraction wells as appropriate. See Table 1 and Figure 1 (attached) for monitoring and extraction wells installed at the adoption of this SMP.

E. SCHEDULE OF SAMPLING AND ANALYSES

1. The schedule of sampling and analysis shall be that given in Table 1 (attached).
2. In addition, if a previously undetected compound or peak is detected in a sample from a well, a second sample shall be taken within a week after the results from the first sample are available. All chromatographic peaks detected in two consecutive samples shall be identified and quantified in the quarterly report.
3. Groundwater elevations shall be obtained on a monthly basis from all extraction wells and on a quarterly basis from all monitoring wells.
4. Well depths shall be determined on an annual basis and compared to the depth of the well as constructed.
5. The depth of the pump and the groundwater elevation at the time of sampling shall be determined and submitted in the quarterly report with the sampling results.

I, Steven R. Ritchie, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with site cleanup requirements established in Regional Board Order No. 89-63.
2. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger, and revisions will be ordered by the Executive Officer or Regional Board.
3. Was adopted by the Board on April 19, 1989.

4/19/89
DATE

Steven R. Ritchie
Executive Officer

Attachments: Table 1 - Sampling Schedule
Figure 1 - Well Location Map

TABLE 1
SCHEDULE FOR SAMPLING AND ANALYSIS

	SAMPLING STATIONS					
				Monitoring Wells		
Type of Analysis	All new wells	Extraction Wells	6,7,11,12	29,33,34,35,36,37	17,22,23,25,31	5,9,10,13,14,15,16,19,21,26,27,28
8010	B/Q/S	M	Q	Q	Q	S
8020		Q/S	Q/S 6-A	A	22,23- Q/S	15,16- Q/S
Metals*		Q/S	Q/S			15,16- Q/S
8240	I	A	A			

Legend

M = Monthly

Q = Quarterly

S = Semiannually

A = Annually

I = Initially (one-time only) sample (to be followed within two weeks by an 8010 analysis)

B/Q/S = Bimonthly for 6 months, the quarterly for 4 samples, then semi-annually

Q/S = Quarterly for 4 samples, semiannually for 4 samples, then annually

*Metals analyses shall include copper, lead, and nickel.

